

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2001-504-E - ORDER NO. 2002-306

APRIL 29, 2002

IN RE:	Application of Cherokee Falls Development)	ORDER GRANTING
	Company, LLC for a Certificate of)	CERTIFICATE
	Environmental Compatibility and Public)	
	Convenience and Necessity to Construct and)	
	Operate a Generating Plant in the Vicinity of)	
	Gaffney, SC, and to be known as the)	
	Cherokee Clean Energy Center.)	



This matter comes before the Public Service Commission of South Carolina (the Commission) on the Application of Cherokee Falls Development Company, LLC (Cherokee Falls, the Facility, or the Company) for a Certificate of Environmental Compatibility and Public Convenience and Necessity, pursuant to the provisions of S.C. Code Ann. Section 58-33-10, et seq. (1976) and (Supp. 2001) (the Siting Act). Because the record of this proceeding establishes that Cherokee Falls has satisfied the statutory requirements for the relief it seeks, the Commission will herein approve the Application and issue the requested Certificate.

Prior to the submission of its Application, Cherokee Falls published notice of its intent to apply for a Certificate under the Siting Act, as the provisions of Section 58-33-120(3) require. In addition, the Application included certification that Cherokee Falls had served a copy of the Application on those governmental officials and such other persons as Section 58-33-120(2) of the Siting Act requires.

Upon receipt of Cherokee Falls' Application, the Commission's Executive Director required the Company to publish a prepared Notice of Filing which described the nature of the Application and advised all interested parties of the manner in which they might intervene or otherwise participate in the proceeding. Cherokee Falls submitted an affidavit which demonstrated compliance with the Executive Director's instructions. A Petition to Intervene was received from the Consumer Advocate for the State of South Carolina (the Consumer Advocate).

On March 11, 2002, at 10:30 a.m., in accordance with Section 58-33-130 of the Siting Act, and with the Commission's Rules of Practice and Procedure, the Commission conducted an evidentiary hearing in this proceeding. Cherokee Falls was represented by John M.S. Hoefer, Esquire. Charles Knight, Esquire, represented the Consumer Advocate. The Commission Staff was represented by Jocelyn Boyd, Staff Counsel and Florence Belser, Deputy General Counsel.

Cherokee Falls presented the testimony of Steve Patrick, Art Holland, Kennard Kosky, and Michael O'Sullivan. No witnesses were presented by the Consumer Advocate. The Commission Staff presented the testimony of A.R. Watts.

In addition to the testimony of these five witnesses and five hearing exhibits, the record of this proceeding includes Cherokee Falls' Application, the various notices, and pleadings.

SUMMARY OF TESTIMONY

Michael O'Sullivan

Cherokee Falls first presented the direct and rebuttal testimony of Michael O'Sullivan. Tr., O'Sullivan at 4-22. O'Sullivan is employed by Florida Power and Light Energy (FPL Energy) as Senior Vice President of Development. FPL Energy is a wholly-owned subsidiary of FPL Group, Inc. O'Sullivan described FPL Energy and its operations, FPL Energy's relationship with Cherokee Falls, the location and purpose of the proposed facility, Cherokee Falls' commitment to conform to State and local laws and regulations, and impacts upon gas and electric transmission. The testimony reveals that FPL Energy is located in Juno Beach, Florida and is a leader in developing clean fuel independent power projects. O'Sullivan testified further that FPL Energy's primary business is the development and operation of a broad-based generation portfolio. According to the testimony, FPL Energy has plants in operation or under construction in seventeen states totaling approximately 10,000 megawatts of generation. Further, O'Sullivan testified that FPL Energy projects are concentrated in four regions around the United States – the Northeast (38%), mid-Atlantic (20%), Central (27%) and West Coast (15%). Additionally, O'Sullivan testified that FPL Energy generates clean energy which is of the following mix: natural gas – 45%, wind energy – 29%, hydro – 7%, oil – 15%, and other – 4%.

Regarding the relationship between Cherokee Falls and FPL Energy, O'Sullivan testified Cherokee Falls is a limited liability company organized under the laws of the State of Delaware with its principal place of business in Juno Beach, Florida. O'Sullivan

stated that Cherokee Falls is a single-purpose company formed under FPL Energy and, as such, is an indirect subsidiary of FPL Group. Additionally, O'Sullivan testified that Cherokee Falls is authorized to transact business in South Carolina.

The testimony reveals that Cherokee Falls intends to construct a two-unit simple cycle combustion turbine generating facility with a nominal net capacity of 332 megawatts (MW), burning natural gas fuel only and connected to the Duke Energy transmission grid. O'Sullivan stated that the estimated cost of the Facility is approximately \$130 million. Cherokee Falls expects to be in commercial operation by June 2004. According to the record, Cherokee Falls will be located on a twenty-eight acre site southeast of the City of Gaffney, in Cherokee County, South Carolina. The proposed site is part of a 116 acre tract owned by Cherokee County. The record also reveals that Cherokee County Co-generation Partners, L.P. is located adjacent to the Cherokee Falls proposed site.

Moreover, O'Sullivan testified that Cherokee County has passed a resolution in support of the proposed project. According to the record, Cherokee Falls will be a significant contributor to the tax base with no additional cost to the county for infrastructure to support the Company. Cherokee Falls will employ about two hundred workers during the peak construction period and will employ about five full-time skilled employees in the operation of the Facility. O'Sullivan testified that Cherokee Falls will operate as a peaking plant, running as necessary to meet the peak electrical loads for this region. The Facility should complement the existing generation assets in the region and is not expected to replace any of those facilities.

Regarding the probable environmental impact, Cherokee Falls projects and fully expects to achieve minimal and not adverse impacts on water, noise, air quality and natural resources from the construction and operation of Cherokee Falls. O'Sullivan also testified that the Facility is state of the art. More specifically, O'Sullivan testified that natural gas is the least carbon-intensive fossil fuel, and gas-fired generation also produces significantly lower emissions of sulfur dioxide, nitrogen oxides and other pollutants compared with coal-fired generation. O'Sullivan also testified that Cherokee Falls' practice is to comply with all applicable standards in this regard and O'Sullivan believes that FPL Energy, LLC's strong and growing presence throughout the country is evidence of its commitment to that practice.

O'Sullivan also described the electrical interconnection facilities for Cherokee Falls. According to the record, the proposed project includes construction of a 100 kilovolt (kv) transmission line from the generating station switchyard to Duke Energy's Gaffney Substation Tie located approximately 0.25 miles northwest of the facility. The record also reveals that the project's original interconnection request to Duke Energy provided for a double-circuit 100 kv tie from the plant to Gaffney Tie. However, since Cherokee Falls filed its original interconnection request and its Application, the Company has continued evaluation of interconnection alternatives to insure that the most optimum interconnection configuration is implemented. According to O'Sullivan, a single-circuit tie will be employed; this single-circuit tie minimizes both the required right-of-way and visual impact of the tie line; and it is also the most economical approach.

O'Sullivan also testified that Duke Energy has conducted an Interconnection Study, which identifies any thermal overloads, fault duty or stability problems associated with interconnection of the project. Additionally, O'Sullivan testified that Duke Energy's studies have identified a need to increase the capacity of the Beaver 100kv lines and associated terminal equipment; increase 100/44kv transformer capacity at the Gaffney Tie; increase the capacity of the Ninety Nine 44kv line and associated terminal equipment; and replace 2 overdutied 100kV circuit breakers at Tiger Tie substation. O'Sullivan also testified that improvements to Duke Energy's system will be paid for by Cherokee Falls and implemented by Duke Energy so that all of Duke Energy's criteria for transmission system reliability are met.

Regarding Cherokee Falls' interconnection with Williams-Transco, O'Sullivan testified that Cherokee Falls is a peaker and the Facility will be utilizing interruptible pipeline space that is available during the non-heating season, and the majority of revenue will be credited to the local distribution company rate payers. O'Sullivan believes that the project actually helps balance the gas system and makes it more efficient.

Finally, O'Sullivan testified that Cherokee Falls does not currently have a purchased power agreement for the capacity that the proposed facility will generate. Cherokee Falls has had discussions, and continues to have discussions with investor-owned utilities, municipal and other governmental utilities, and other potential purchasers of the output in South Carolina, in VACAR, and in SERC. O'Sullivan testified that due

to line loss considerations, Cherokee Falls prefers to sell the energy in South Carolina and the Company will make every reasonable effort to do so.

Steve Patrick

The Company next presented the testimony of Steve Patrick, who is employed by FPL Energy as the plant manager of the Cherokee County Cogeneration Partners, LP facility in Gaffney, South Carolina. Tr., Patrick at 40-51. Patrick presented testimony to support Cherokee Falls' Application. Patrick described the proposed site and project that Cherokee Falls plans to build. According to Patrick, the site will include two water tanks, a natural gas heater, an access road, parking area, detention pond for storm water management, and other support components. Cherokee Falls will be constructed to deliver and sell electrical power as an Exempt Wholesale Generator in the wholesale generating market.

Patrick also testified that Cherokee Falls will interconnect with the existing Duke Energy Gaffney Substation, which is located about one-quarter mile northwest of the proposed site of the Facility. Moreover, the testimony reveals that natural gas will be the only fuel used in the combustion turbines. Cherokee Falls will draw natural gas from the pipeline operated by Williams Gas Pipeline-Transcontinental Gas Pipeline Company, which is located about two miles southeast of the proposed site. Patrick testified that a new lateral line will tie into the existing Transco line and will run to the proposed site utilizing the existing easement that serves the Cherokee Co-generation facility.

The record also reveals that Cherokee Falls' major facility components will include two simple-cycle General Electric Frame 7FA combustion turbines with dry low-

NO_x combusters. Additionally, the testimony reveals other components include one natural gas heater, two electric generators, two step-up transformers, two 80-foot-tall 18 foot diameter exhaust stacks and two water tanks and fire protection systems. The Facility will also include two wet surface air coolers. Patrick also stated that a building to house the control equipment, maintenance and administrative offices and a storage area will also be included. The testimony also reveals that there will be a stormwater detention pond, an electrical switchyard, a process water system and portable demineralizer units.

Patrick described the operation of the General Electric Frame 7FA turbines. Power generated at the Facility will be delivered to Duke Energy's Gaffney Substation. Patrick also stated that potable water, after additional treatment at the facility, will be used for inlet air cooling of the turbine. The testimony also reveals that potable water will also be used for periodic water-washing of the turbine compressor, wet surface air coolers for turbine equipment, fire protection, plant washdowns and other potable water needs. The record also states that the Gaffney Board of Public Works will sell the potable water and treat the sanitary and process wastewater, which will be routed to its nearby wastewater treatment facility. Patrick also testified that the process will require approximately one hundred thirty thousand gallons per day (GPD) of potable water and will discharge approximately thirty thousand GPD of wastewater. The testimony reveals further that the Board of Public Works has indicated that it has more than enough capacity to serve the project, which will be helpful in overcoming declining utilization for its services since the closure of several large textile plants in the area.

Patrick also testified that the Facility will cost about \$130 million to build. Additionally, Patrick stated that construction will take between twelve and twenty-four months from the time all approvals have been obtained. If all certificates and permits are issued, Patrick stated that the Facility is expected to be operation in June 2004.

The record also reveals why the proposed site was chosen. First, according to Patrick, the site enjoys a proximity to natural gas and electric transmission facilities. Next, the testimony reveals that the site is most appropriate because it is already being used for a similar purpose—electric generation. Cherokee County has developed the site by the issuance of supplemental source revenue bonds to put all of the road, drainage, water and sewer infrastructure in place. Finally, Patrick opined that Cherokee Falls is welcomed in the community. For example, Patrick testified that the proposed Facility has met with unanimous approval by the Economic Development Board and the County Council in Cherokee County. According to the testimony, Cherokee Falls has had no objections within the community.

Patrick also addressed economic benefits that he opined the Facility will bring to the community. First, Patrick stated that the Cherokee Clean Energy Center will be a major contributor to the tax base in Cherokee County. Moreover, the testimony reveals that there is no cost to the county for additional infrastructure to support the facility; Cherokee Falls will employ about five full-time skilled employees. Further, Patrick stated that goods and services will be purchased locally and will add to the Board of Public Works revenue base. Finally, Patrick testified that during the peak of the year-long construction phase, about two hundred construction workers will be employed.

Kennard F. Kosky

Kennard Kosky presented testimony regarding the minimal nature of the environmental impact associated with the construction and operation of the proposed Facility. Tr., Kosky at 65-80. Kosky is employed by Golder Associates, Inc. as a Principal with the firm in the Gainesville, Florida office. Golder Associates prepared an environmental study associated with the project, which is attached as Exhibit "B" to the Company's Application. According to Kosky, the probable impacts on air quality, water quality, noise, cultural resources, and natural resources from construction and operation of the Facility will be minimal, not adverse, and can comply with applicable environmental requirements.

Regarding the environmental impacts of air emissions from the Facility, Kosky testified that the proposed state of the art Facility will consist of two General Electric Model 7FA combustion turbines, operated as simple-cycle peaking units fired by natural gas only. Kosky stated that the Facility will exclusively use natural gas minimizing the emissions of sulfur dioxide and particulate matter (PM). Additionally, the testimony reveals that pollution preventing combustion controls, referred to as a dry-low-NO_x combustion technology, will be used to minimize the amount of nitrogen oxides, carbon monoxide, and volatile organic compounds formed in the combustion process. Moreover, according to the record, using the above-mentioned system, nitrogen oxide emissions will be 0.34 pounds per MW-hour. Kosky testified that most modern combustion turbines in South Carolina emit, on average, about 0.85 pounds per MW-hour and all power plants in South Carolina emit, on average, about 3.8 pounds per MW-hour.

Moreover, further studies regarding the proposed project indicate that the Facility will fully comply with the applicable air quality regulations including the PSD Class I and II increments and Ambient Air Quality Standards.

Kosky also described the impact of the facility on water resources and water quality including consumptive water use, stormwater, wastewater and groundwater. The testimony reveals that the proposed simple cycle facility has minimal requirements for water. For example, Kosky stated that consumptive use of water includes such uses as make up for inlet foggers for evaporative cooling, make up for wet surface air coolers, and equipment wash-down and potable purposes. Kosky testified that based on discussions with the Gaffney Board of Public Works (BPW), the current capabilities of the water supply plant are more than adequate to meet the demand for the project.

Further, the testimony reveals that a minimal amount of wastewater will be generated as a result of the construction and on-going operation of the proposed facility. Kosky testified that wastewater generated at the site will be discharged to the BPW's wastewater treatment system. The testimony also reveals that application for wastewater discharge and connections will be made to the appropriate regulatory bodies. Kosky also testified that prior to, and during construction of the Facility, the site will be stabilized to minimize impacts of stormwater runoff. For example, Kosky testified that soils will be stabilized by means of temporary erosion control measures (i.e., hay bales, silt fence, sediment traps, diversion berms) and the primary stormwater pond for the Facility will be constructed and used for stormwater detention purposes. According to the record, prior to construction, a General NPDES Stormwater Permit for earth disturbing activities larger

than five acres will be obtained from the South Carolina Department of Health and Environmental Control (SCDHEC). Additionally, because the project area will include new impervious areas (i.e., pavement and buildings), Kosky testified that permanent stormwater facilities will be installed. These permanent stormwater facilities will minimize potential impacts to water quality and quantity, in accordance with applicable federal, State and local regulations.

Further, the record reveals that selected contractors who work at the proposed Facility will provide containers for holding refuse generated by their activities during construction. Kosky testified that the contractors will arrange for the routine removal of the accumulated refuse/wastewater and appropriate off-site disposition.

Regarding the noise impacts from the proposed Facility, Kosky stated that a comprehensive ambient noise-monitoring study was performed to assess the existing (background) ambient noise levels in the project area prior to the construction and operations of the project. According to the record, construction activities for the Facility are expected to occur mainly during daytime hours. The testimony reveals that any noise generated by construction will be of a short duration and will occur primarily during the daytime. Further, Kosky stated the Facility will incorporate noise controls to minimize noise generated during operation. Examples of noise controls include sound absorbing materials in the inlet of the combustion turbines, enclosures for the combustion turbines and electric generators, and installed silencers in the stacks. Kosky opined that the predicted noise impacts of the Facility are comparable to the existing noise levels in the area.

Kosky also addressed the impact of the proposed Facility on cultural resources, aesthetics, and land use. According to the testimony, the cultural resources of the project area were evaluated prior to the construction of the Cherokee County Cogeneration Partners, LP facility. Kosky stated that a letter from the South Carolina Department of Archives and History (SCDAH) was issued on August 30, 1995, regarding the then-proposed cogeneration facility, stating that there were no known cultural resources that would be affected by that facility. The record reveals that the State Historic Preservation Officer (SHPO) indicated that the August 30, 1995, letter from the SCDAH was sufficient to meet all requirements regarding the presence of historical and archaeological sites within the area proposed for the project location. Kosky stated that because the parcel where the proposed Facility will be built already includes a combined-cycle facility, construction of the proposed simple cycle facility is consistent with visual character of the site.

Regarding the impact of the proposed Facility on natural resources, the testimony reveals that construction will require the clearing and grading of approximately twelve acres of upland forest. Kosky testified that all wetland areas, including Peoples Creek, its tributaries, and the herbaceous wetland near Beech Street will be avoided during construction. Further, Kosky stated that other than stormwater pond outfall, no impacts to any wetlands are anticipated, and on-site erosion control measures will be employed to protect Peoples Creek and its tributaries. Moreover, Kosky testified that construction activities are not expected to result in the loss of terrestrial wildlife species. The record reveals that upland forests occupy a large percentage of Cherokee County, allowing

ample opportunity for avian species to relocate. Kosky stated that no rare, threatened, or endangered species are known to occur on the site nor were any observed during site visits; no impacts are expected due to project construction or operation.

According to the record, the Company will need to obtain the following permits prior to construction of Cherokee Falls: a PSD Air Construction Permit; a General NPDES Permit for Stormwater Discharges from Construction Activities; an Authorization to Construct a Wastewater Treatment System; and a wastewater pretreatment permit. Kosky testified that Cherokee Falls will obtain a USACE General Permit and, if necessary, a permit for external potable water supply connection will be obtained from the SCDHEC and BPW. The record reveals that Cherokee Falls is required to obtain an Acid Rain Permit twenty-four months before the date the unit begins serving an electric generator greater than twenty-five mega-watts. Kosky also stated that within one year of start-up of the Facility, Cherokee Falls will be required to obtain a Title V Air Operating Permit from SCDHEC. In sum, Kosky testified that the probable environmental impacts of the proposed Facility are minimal and not adverse.

Art Holland

Cherokee Falls also presented Art Holland, Director in the Power Services Division of Pace Global Energy Services, LLC ("Pace"). Tr., Holland at 106-139. Holland served as Director for the proposed Facility wherein he assisted in the preparation of analyzing the economic viability of Cherokee Falls. After completing his analysis, Holland drew several conclusions. First, Holland determined that as a result of the need for additional capacity in the region, as well as the significant load growth being

experienced in the State of South Carolina, the Cherokee Falls Facility is needed to meet demand in South Carolina and the region. Next, Holland concluded that there is currently a need in the Virginia-Carolina ("VACAR") sub-region of the Southeastern Electric Reliability Council ("SERC") for over 13,000 megawatts of additional generating resources by the end of 2010. Additionally, Holland testified that the 332 MW to be provided by the Facility represents less than three percent of the generating capacity that needs to be added to VACAR to maintain adequate reserves, ensure system reliability, and facilitate power price stability. Moreover, Holland stated that the Facility is in the appropriate location, of the appropriate size, and is the proper type of generating facility to respond to the need for generating resources in the State and the region. The testimony also reveals that the Facility will promote system economy and reliability and that without the construction of additional capacity such as Cherokee Falls, reserve margins in South Carolina and the region will continue to decline, thus threatening system economy and reliability. Finally, Holland opined that the public convenience and necessity require the construction of the Cherokee Falls Facility.

Holland testified that the need for a new rate based generating facility is determined by an analysis of customer demand compared with existing capacity. In Holland's opinion, when demand plus a reasonable reserve margin exceeds available capacity, there is a need for new capacity. According to Holland's study, there is a need for a substantial number of facilities similar in type to the Cherokee Falls Facility over the next ten years. Pace's projections indicate a need for over 13,000 MW of additional generating capacity in VACAR by the end of 2010 (2002 to 2010, inclusively) and over

49,000 MW of additional generating capacity by the end of 2025. Holland testified that these figures do not include replacement capacity for any retired nuclear or other generating stations.

The testimony also reveals that for all of SERC, Pace projects a need for an additional 40,000 MW of generating capacity by the end of 2010. The record also indicates an average projected demand growth rate for VACAR from 2001 to 2010 is 2.7 percent or over 1,500 MW per year through 2010, while Pace's average projected growth for SERC over the same period is 2.4 percent or over 4,800 MW per year.

Holland testified that the Cherokee Falls Facility represents only about 2.5 percent of what is needed in VACAR through 2010. Moreover, according to Holland, if the generating capacity is not built, then the VACAR subregion will be short of generating capacity which will result in a reduction in the reliability of the power grid and the potential for very high and volatile power prices like those experienced in California before the Federal Energy Regulatory Commission imposed price mitigation measures.

In examining the need for generating facilities in SERC, Holland testified that Pace projects a need for over 6,000 MW of simple-cycle peaking capacity in SERC between 2002 and 2010, inclusively, based on forecasted demands and market prices. The record reveals that SERC's Regional Electricity Supply and Demand Projections 2001-2010 project a need for 12,109 MW of peaking capacity over the years 2002-2010, inclusively.

Holland also concluded that there is a need for additional capacity in South Carolina. According to the record, South Carolina-serving utilities represent a large

portion of VACAR and SERC. Moreover, Holland stated that retail electricity sales in South Carolina represent 28 percent of total VACAR retail sales and 11 percent of SERC retail sales, and electricity demand in the State has been growing. Thus, Holland concluded that any regional need for electric supply resources directly impacts South Carolina. Holland also argued that reserve margins in the State have been steadily decreasing while demand for electricity in the State has been growing faster than the supply of generating capacity. Moreover, Holland pointed out that without consistent additions of generating capacity to keep pace with growing demand, there has been and will continue to be a decrease in reserve margins in South Carolina. Holland stated that the demand for electricity in South Carolina is due in part to population growth, the increased use of electricity-intensive products, and the continued success of South Carolina's robust economic development.

Holland compared his analysis regarding the need for additional capacity in South Carolina to publicly available NERC, SERC, and EIA regional data and forecasts. In Holland's opinion, because the electric system serving South Carolinians is interconnected with larger regional electric systems, South Carolina's system reliability must be evaluated on a regional basis, not just on a stand-alone basis. For example, the record reveals that EIA has projected that SERC needs to add 27,440 MW of resources, 85 percent combined-cycle combustion turbines and 14 percent simple-cycle combustion turbines (1 percent other), by 2010 (2002-2010, inclusively). Moreover, SERC projects 37,625 MW of new capacity additions (2001-2010, inclusive), of which 32 percent or 12,109 MW is combustion turbine peaking capacity like the Cherokee Falls Facility.

Holland also stated that unless merchant facilities like Cherokee Falls are added, there likely will be a shortage of capacity that will impact reliability in the State and the region and lead to higher, more volatile electricity prices.

Holland's review of IRPs of investor-owned utilities in South Carolina also indicates a need for generating resources. According to the testimony, all of the major utilities serving in South Carolina, CP&L, Duke Power, SCE&G and Santee Cooper, expect to continue to experience significant load growth. Moreover, Holland testified that all have recognized the need for additional generating capacity in the near-term.

Holland also stated that other information supports his conclusion that additional electrical generating capacity is needed in South Carolina and the region. According to the record, in South Carolina, most significant generating assets serving the State's needs have been in service for a long period of time. The record reveals that over 5,700 MW of capacity in South Carolina is over thirty years old, and in addition, 3600 MW is between 25 and 30 years old. Thus, according to Holland, when generating units age, the frequency of scheduled and unscheduled maintenance often increases, thus causing the reliability and availability of the units to decline. Further, Holland stated as units age, the possibility of unit retirements increases; taking units permanently off-line creates a corresponding need for replacement resources. Additionally, Holland testified that South Carolina has historically relied on its coal-fired generators to supply a very significant portion of the State's energy. However, under Title 1 of the Environmental Protection Agency's (EPA) Clean Air Act Amendments, generators will be required to take steps to meet more stringent summer season NO_x emission standards. Holland opined that in

states that have a large base of high-emission coal-fired capacity, such as South Carolina, this regulation may result in extended outages due to compliance-related maintenance, thus making less generation available for dispatch.

Holland also testified that Cherokee Falls is the appropriate Facility to build in South Carolina because it is of a sufficient size to contribute meaningfully to capacity. The Company will provide fuel diversity to the State and it offers the operational flexibility of a simple-cycle generator. Moreover, Holland testified that under competitive market conditions, the Cherokee Falls Facility will provide insurance to consumers that reliable power and low prices will be maintained. Holland opined that under conditions of capacity shortages, peakers such as the Cherokee Falls Facility are available to provide electric energy until additional capacity can be brought to market or until the emergency condition passes. Furthermore, Holland stated that under conditions of surplus capacity, peaking plants may run very little, but under competitive market conditions consumers will not be required to pay for this surplus capacity – the owners of peaking capacity bear the risk of unfavorable market conditions.

Holland also addressed system reliability and system economy. The testimony reveals that SERC has the responsibility of coordinating the planning and operations of the bulk power electric system in the southeastern United States. Holland testified that South Carolina is not isolated from regional reliability issues and problems. He opined the reliability of electric service in South Carolina is dependent upon the adequacy of generation and transmission resources in the regions.

According to the testimony, system reliability is assessed in terms of the interconnected bulk electricity system's ability to generate and transmit enough electricity to meet the requirements of all customers at all times throughout the interconnected region, while at the same time withstanding sudden disturbances to the system, such as short circuits or an unanticipated outage of generating units or transmission lines. Holland testified that a reliable system thus must include not only a transmission infrastructure capable of delivering electricity throughout the system but also sufficient generation to adequately meet existing and projected demand.

Holland stated that the Cherokee Falls Facility will promote both statewide and regional reliability in several ways. First, Holland testified that the Facility will add 332 MW of additional electric generation, which will be available to serve the needs of South Carolinians and others throughout the Southeast. Moreover, as reserve margins have been decreasing, Holland stated the system's reliability has become vulnerable to higher than projected customer demand induced by extreme weather and unexpected equipment shutdowns or outages. Therefore, in Holland's opinion, the Facility's 332 MW of capacity will make a significant difference in establishing adequate reserve margins.

The testimony also reveals that the Facility will add system support to the transmission grid in South Carolina, and will be able to provide certain ancillary services that are necessary for the operation of the system, including load following and voltage support. For example, the testimony indicates that the turbines have quick-start capability, and can achieve full power within thirty minutes from start-up. Holland

testified that the Facility can provide load following capability that could be available to the transmission system operator.

Holland also testified that the Facility will promote the interests of system economy. According to the testimony, South Carolina consumers of wholesale electricity will only pay for additional merchant capacity if and when they decide to purchase it, and Cherokee Falls will bear the risk associated with the project. Holland also stated that competitive power prices are very sensitive to supply and demand, and an adequacy of generating capacity helps to ensure that power prices in South Carolina will remain low. Next, Holland testified that Cherokee Falls will run on natural gas and will utilize state-of-the-art peaking generation technology, thus providing an efficient and economical energy source. Additionally, the testimony reveals that the Facility will enhance fuel diversity because the project will use natural gas instead of coal.

Finally, the record reveals that the public convenience and necessity require the construction of the Facility. Holland testified that the projected growth in demand for electric generation in the county, State, and region establishes the need for additional supply generating resources. The record indicates that Cherokee Falls is prepared to make the necessary investment to provide safe and reliable generation to meet this demand and, at the same time, provide tax revenues, jobs, and other economic benefits for Cherokee County.

A.R. Watts

Commission Staff witness A.R. Watts presented a compilation of data from the SERC region which provides information pertaining to merchant plants located in the

individual states. Tr., Watts at 172-185. The thirteen states that are included in the SERC region, either in whole or in part are: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas, and Virginia. Watts stated that due to the insignificant amount of the SERC region in the State of Texas, he did not provide merchant plant statistics for that State. Watts also did not include information from the State of Florida as certification from the State of Florida requires the output of a steam plant to be committed to an incumbent electrical utility, thereby minimizing the possibility of merchant plants locating in that State.

According to the record, Mississippi has the highest capacity of merchant facilities with a total of 9965 MW, followed by Arkansas with 7970 MW, then Louisiana with 7073 MW, Alabama with 6453 MW and Georgia with a total of 5248 MW. Thereafter, Kentucky follows with 5026 MW, then North Carolina with 4180 MW and Tennessee with 3555 MW of merchant plant generation. Watts continued by stating that Missouri has one 640 MW natural-gas fired, simple-cycle facility. Additionally, Watts stated that even though there have been approximately thirty announced merchant facilities in Virginia, Staff was only able to confirm 421 MW of certificated non-incumbent generation. The record reveals that the total capacity for these ten states is 50,531 MW.

Watts testified that in attempting to obtain copies of the Integrated Resource Plans (IRP) of the electrical utilities in the SERC region, he found that the only state commissions, other than South Carolina, that require these IRPs to be filed are Alabama, Georgia, and North Carolina. Additionally, Watts stated that the states of Kentucky and

Missouri indicated that none of the regulated utilities in those states are members of SERC. In Exhibit B of his testimony, Watts included four IRPs from Alabama Power Company, Georgia Power Company, Savannah Electric and Power Company, and Dominion North Carolina Power. Watts also included three pages of information from Virginia for Virginia Electric and Power Company for peak load and energy forecast and generation data, which is filed with the State regulatory agency. Watts also included a copy of Cherokee Falls' Responses to Staff Data Request, as Exhibit C.

FINDINGS OF FACT

1. Cherokee Falls is a limited liability company organized under the laws of the State of Delaware, with its principal place of business in Juno Beach, Florida. The Company is authorized to transact business in the State of South Carolina.

2. Cherokee Falls proposes to construct and operate a two-unit simple cycle combustion turbine generating plant with a nominal net capacity of 332 MW. The Company expects the Facility to be in commercial operation by June 2004. The Facility will be located on a 28 acre tract southeast of the City of Gaffney, in Cherokee County, South Carolina.

3. The Facility will utilize two natural gas fired combustion turbine generating units operating in simple-cycle mode to produce approximately 332 MW of electrical output. Each of the combustion turbine units will be enclosed in its own weather-tight acoustical enclosure and each unit will have, among other features, an individual exhaust stack and, possibly, a wet surface air cooler. A separate building will house control, maintenance, storage, and administrative operations. The site for the

Facility will include two water tanks, a natural gas heater, an access road, parking area, detention pond for stormwater, and various other support components.

4. The Facility will interconnect with the existing Duke Energy Gaffney Substation located approximately 0.25 miles northwest of the proposed site of the Facility.

5. The Facility will draw natural gas from the pipeline operated by Williams Gas Pipeline—Transcontinental Gas Pipe Line Company, which is located approximately two (2) miles southeast of the proposed site.

6. The Company has established the basis of the need for the Facility.

7. The impacts on water and air quality and on natural resources from the construction and operation of the Facility will be minimal and not adverse. The impact of the Facility upon the environment is justified, considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations.

8. The Facility is being constructed to deliver and sell electrical power as an Exempt Wholesale Generator operator in the wholesale generating market. In addition, the Company intends to sell power to, and believes that there is a market to sell power to electric cooperatives, local power companies, municipalities, and wholesale marketers. The electricity generated by the Facility will be used for peak periods.

9. Neither the Commission nor Cherokee Falls has received any adverse comments from any governmental agency responsible for environmental protection, land use planning, or other regulation of the new site or the Facility.

10. Cherokee Falls and the Commission have satisfied all statutory requirements for notice and opportunity for hearing which the Siting Act describes.

11. The Facility will serve the interests of system economy and reliability.

12. There is reasonable assurance that the proposed Facility will conform to applicable State and local laws and regulations issued thereunder.

13. The public convenience and necessity require the construction of the Facility.

14. The requested Certificate for the plant should be granted.

CONCLUSIONS OF LAW AND DISCUSSION

1. The Company has demonstrated the basis of the need for the Facility. The Pace Study presented by Company witness Holland shows that there is a need for over 13,000 MW of additional generating capacity in VACAR by the end of 2010 (2002 to 2010, inclusively) and over 49,000 MW of additional generating capacity by the end of 2025. Tr., Holland at 116-118. Additionally, reserve margins in South Carolina have been steadily decreasing while demand for electricity in the State has been growing faster than the supply of generating capacity. Tr., Holland at 121. Moreover, unless plants like Cherokee Falls are added, there will likely be a shortage of capacity that will impact reliability in the State and the region and lead to higher, more volatile electricity prices. Tr., Holland at 124. Further, the age of existing generating units in South Carolina is a concern. In South Carolina, most significant generating assets serving the State's needs have been in service for a long period of time – over 5,700 MW of capacity in South

Carolina is over 30 years old. As units age, the possibility of unit retirements increases, which creates a corresponding need for replacement resources. Tr., Holland at 128.

2. The nature of the probable environmental impact is minimal and not adverse. The Company analyzed the probable environmental impact of the construction and operation of the facility on air quality, water quality, noise, cultural resources and natural resources. Again, little or no impact is anticipated. Tr., Kosky at 70-76.

3. The impact of the Facility upon the environment is justified, considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations. The proposed state of the art Facility will consist of two General Electric Model 7FA combustion turbines, operated as simple-cycle peaking units fired by natural gas only. The Facility will exclusively use natural gas minimizing the emissions of sulfur dioxide and PM. Additionally, pollution preventing combustion controls, referred to as a dry-low-NO_x combustion technology, will be used to minimize the amount of nitrogen oxides, carbon monoxide, and volatile organic compounds formed in the combustion process. Tr., Kosky at 70.

4. The Facility will serve the interests of system economy and reliability. As for system reliability, Cherokee Falls will add 332 MW of additional electric generation. This capacity will be available to serve the needs of South Carolinians, as well as others throughout the Southeast. Additionally, the Company's 332 MW of capacity will make a difference in establishing adequate reserve margins. Tr., Holland at 134. Furthermore, the Cherokee Falls Facility will add system support to the transmission grid in South Carolina and will be able to provide certain ancillary services that are necessary for the

operation of the system, including load following and voltage support. The Company's turbines have quick-start capability, and can achieve full power within thirty minutes from start-up. This improved technology enables the transmission system operator to react quickly to sudden, unexpected outages of generation and transmission facilities, while maintaining system voltage without relying on emergency power supplies from neighboring regions which may not be available due to transmission congestion. Tr., Holland at 134-135. With regard to system economy, South Carolina consumers of wholesale electricity will only pay for additional merchant capacity if and when they decide to purchase it, and Cherokee Falls will bear the risk associated with the project. Additionally, Cherokee Falls will run on natural gas and will utilize state-of-the-art peaking generation technology, thus providing an efficient and economical energy source. Moreover, the Facility will enhance fuel diversity by using natural gas. The Facility will provide some protection from the risk of suffering a disproportionate negative impact if the price of coal or the environmental costs associated with coal-fired generation increase dramatically. Tr., Holland at 135-136. Because of these reasons, the Facility will serve the interest of system economy and reliability.

5. There is reasonable assurance that the proposed Facility will conform to applicable State and local laws and regulations issued thereunder. Tr., Kosky at 71-77; O'Sullivan at 13.

6. The public convenience and necessity require the construction of the Facility. The projected growth in demand for electric generation in the county, State, and region establish the need for additional supply generating resources. In addition to the

above-stated reasons, Cherokee Falls will provide tax revenues, jobs, and other economic benefits for Cherokee County. Tr., Holland at 136.

7. The requested certificate should be granted, since Cherokee Falls has satisfied all of the statutory requirements found in S.C. Code Ann. Section 58-33-160 (1976).

IT IS THEREFORE ORDERED THAT:

1. The Application of Cherokee Falls Development Company, LLC for a Certificate of Environmental Compatibility and Public Convenience and Necessity be and hereby is, approved and the Certificate is granted.

2. Cherokee Falls shall notify the Commission's Executive Director of the commercial operation of the plant described in the Application within ten (10) days of such operation.

3. If Cherokee Falls construction is not commenced within two years of the date of this Order granting the Certificate of Environmental Compatibility and Public Convenience and Necessity, then this Certificate is subject to renewal or extension.

4. This Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:


Chairman

ATTEST:


Executive Director

(SEAL)